COVID-19 & THE AFRICAN-AMERICAN COMMUNITY
Introduction

According to the United States (US) Census Bureau, an estimated 44 million Americans identified as Black / African American in 2019 of which approximately 41 million identify as non-Hispanic Black comprising 13.4% and 12.5% of the US population, respectively. Blacks / African Americans are the second largest minority group in the United States, following Hispanics, with a projected growth to approximately 61 million (15.0%) by 2060. Blacks / African Americans are primarily concentrated in the southeastern US (Figure 1) which leads the US in decreased life expectancy and increased mortality rates aligning with current health disparities associated among the population in the United States. In this report, we will provide a current snapshot of the novel coronavirus disease as it pertains to the African American community with an emphasis on root causes of inequity and disparity.

Among the top ten leading causes of death in the US (heart disease, cancer, accidents (unintentional injuries), chronic lower respiratory disease, stroke (cerebrovascular disease), Alzheimer’s disease, diabetes, influenza and pneumonia, nephritis/nephrotic syndrome/nephrosis, and suicide). African Americans are more likely to die at early ages and young African Americans are living with diseases more common at older ages (Figure 2).

Further, African Americans maintain higher prevalence of many chronic health conditions and lower prevalence of health behaviors. Alzheimer’s disease is more prevalent among African Americans than non-Hispanic whites, however knowledge of the disease in Blacks / African Americans is limited because studies have been predominantly based on non-Hispanic whites. Further, it is the 4th leading cause of death among Blacks compared to 6th among the general population. African Americans develop heart disease earlier than all races and are 20 percent more likely to die from heart disease than non-Hispanic whites.

To put this into perspective:

- African Americans have the highest death rate and shortest survival of any racial/ethnic group in the US for most cancers.
- African Americans are 50 percent more likely to have a stroke (cerebrovascular disease), black men are 60% more likely to die from stroke, and black women are 2x as likely to have a stroke as compared to non-Hispanic whites, respectively.
- African Americans are 60% more likely to be diagnosed with diabetes and are twice as likely to die from the disease.
- Blacks and African Americans suffer from kidney failure at rate three times higher than non-Hispanic whites and represent 35% of the US population receiving dialysis due to increased risks associated with diabetes, high blood pressure and heart disease.
- African American adolescents and young adults have a higher number and higher rate of suicide. Self-inflicted injuries are the third leading cause of death among African Americans ages 15-19, 4th leading cause of death among ages 20-29, and 8th leading cause of death among those ages 30-39.

These disparities are a result of a multitude of factors including policy, health behaviors, and socioeconomic status which are widely understood through social determinants of health. Socioeconomic disparities result in unequal access to opportunities and resources, such as work, wealth, income, education, housing, healthy food, overall standards of living, and structural racism. These contributing factors have historically contributed to increased incidence, prevalence, and mortality along with lower life expectancy among Blacks, and the current coronavirus pandemic continues to display the glaring health disparities and inequities present among the African American community in the United States.
The Novel Coronavirus Disease-19 (COVID-19)

On February 11, 2020, the World Health Organization (WHO) announced an official name for the 2019 novel coronavirus outbreak, first identified in Wuhan, China. The disease was named the coronavirus disease 2019, abbreviated as COVID-19, and the specific name of the viral agent is the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

COVID-19 Symptoms

The novel coronavirus disease 19 can present with a wide range of symptoms from ‘no symptoms’ to ‘mild symptoms’ or ‘severe illness’ which may appear 2-14 days after exposure to the virus. Symptoms include:

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New loss of taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

People with these symptoms may have COVID-19 and should be tested as soon as possible. If you experience any of the following symptoms, seek emergency medical attention immediately:

- Difficulty breathing (dyspnea)
- Persistent pain or pressure in the chest
- New confusion
- Inability to wake or stay awake
- Blush lips or face

Call 911 or call ahead to your local emergency facility and notify the operator that you are seeking care for someone who has or may have COVID-19.

Declared a global pandemic on March 11, 2020, COVID-19 is an airborne illness with symptoms ranging from mild (or no symptoms) to severe illness and death. Currently, there have been approximately 36,000,000 cases globally contributing to over 1,000,000 deaths. The United States leads the world in both cases and deaths contributing to over 7 million cases and 215,000 deaths, respectively. Coronavirus is mainly spread through close contact between people who are physically near each other (less than 6 feet) and appears to spread more efficiently than influenza. The most common mechanism of transmission is respiratory droplets which can be produced when people cough, sneeze, sing, talk, or breathe. Subsequently, coronavirus can be spread by airborne transmission, or small droplets and particles that can linger in the air for minutes to hours.

COVID-19 Numbers for African-Americans

According to the CDC, race/ethnicity data was only available for roughly half of confirmed cases (52%). For deaths, only 82% of information was available while only six (6) states adequately report testing statistics; 25% of which none include the counties with highest confirmed cases.

To date, we have lost over 41,000 Black / African American lives to COVID-19 accounting for 21% of COVID-19 deaths where race is known. For every 100,000 Americans in the United States, approximately 98 Blacks have died from the coronavirus accounting for the highest mortality rate of all groups – Asians (40), Whites (47), Latinos (65), Pacific Islanders (72), and Indigenous People (82). Subsequently, Blacks / African Americans are dying at 2.3 times the rate of Whites which is increased to 3.4 times higher when adjusted for age.

Preventing Coronavirus

As with all viruses, coronavirus can be treated, but not cured and there is currently no vaccine to prevent COVID-19. The best mechanism to prevent illness is to avoid being exposed to the virus. To help avoid contracting COVID-19, everyone should:

• Stay at least 6 feet away from others.
• Cover your mouth and nose with a mask.
• Wash your hands often - with soap and water for at least 20 seconds especially after you have been in a public place, or after blowing your nose, coughing, or sneezing.
• Avoid crowded indoor spaces and outdoor spaces and ensure indoor spaces are properly ventilated.
• Stay home and isolate
• Cover coughs and sneezes.
• Clean and disinfect.
• Monitor your health daily.

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Table 1: COVID-19 Cases & Mortality - African Americans

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<th>State</th>
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Prevalence and mortality rates for Blacks / African-Americans are displayed in Table 1. New York, Georgia, New Jersey, Florida, Michigan, Louisiana, Illinois, Texas, Pennsylvania, Maryland, Mississippi, California, South Carolina, and North Carolina are among the leading states for COVID-19 deaths, each contributing to over 1000 Black / African American deaths related to COVID-19. While California and Texas lead the nation in COVID-19 cases among Blacks / African Americans, they do not lead the nation in deaths as New York, Georgia, New Jersey and Florida contribute to more than a one-third (37%) of all COVID-19 deaths among Blacks in the United States. [Table 1]
Inequitable Burden of COVID-19

As SDOH impact up to 80 percent of health outcomes, when differences in any of these factors exist and create barriers between the general population, typically non-Hispanic white males as the comparison, and the most vulnerable populations, we see disparity. These determinants are a balance between our social lives and physical environments that impact our QOL including:

- Availability of resources to meet basic needs (safe housing and food markets)
- Access to educational, economic and job opportunities
- Access to healthcare
- Availability of community-based resources in support community living (recreational opportunities and activities)
- Transportation options
- Public safety (Police, Fire, EMS, 911 Communications)
- Social norms and attitudes (e.g. discrimination, racism, and distrust of the government)
- Exposure to crime, violence, and social disorder
- Socioeconomic conditions (e.g. poverty, low-income housing)
- Language/literacy
- Access to information and technology
- Culture
- Natural environment (e.g. green space) and weather (climate change)
- Built environment
- Worksites, schools, and recreational settings
- Housing and community design
- Exposure to hazards (toxic, physical), and
- Physical barriers (people with disabilities)

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Attention to disparities in incidence, prevalence, and mortality associated with COVID-19 in racial/ethnic communities is increasing. Blacks / African Americans comprise approximately 13% of the US population but account for 4.7 times higher hospitalizations and 2.6 times higher cases second only to American Indians / Alaskan Native populations.[Figure 5] These numbers are increasingly alarming in local community settings. A recent study in Queens, NY highlighted that COVID-19 cases were 30% greater in communities with extremely high cases versus moderate cases. Out of 6 communities (Extremely high cases >3; Moderate cases >1), communities with extremely high cases were predominantly black vs. predominantly white, had a significantly higher percentage of persons with less than a high school diploma, were 40% more uninsured, and had higher rates of chronic and acute conditions (diabetes, obesity, and hypertension).[11] In Chicago, more than 50% of COVID-19 cases and nearly 70% of deaths involve black individuals, although blacks only comprise 30% of the population. In Louisiana, 70.5% of deaths have occurred among Black persons although they only comprise 22% of the state population, and in Michigan, 40% of deaths have occurred among Black individuals who comprise 14% of the state population.[29]
Access To Healthcare

The COVID-19 pandemic has brought into sharp focus the need for health care reform that promotes universal access to affordable care.34 For underemployed, and unemployed individuals, healthcare is unaffordable. In the USA, instances of unexpected medical billings for uninsured patients treated for COVID-19 and carriers continuing to work for fear of redundancy have already been documented.35 Lower access to healthcare is correlated to uninsured populations, testing, chronic conditions all of which are relative to Black / African American populations. This is even more applicable to states with higher percentages of uninsured populations which is increasingly prevalent among Southern states where higher concentrations of Blacks / African Americans reside.36 As 30 million people do not have health insurance across the US, access to healthcare remains an ongoing barrier to health equity and a significant factor to negative health outcomes among the African American community.

Economic Insecurity

In the US, white workers earn 28% more than Black workers.37 Studies show that low-income workers and self-employed workers were among the most to suffer from unemployment as a result of the pandemic.38 For those working in the service industry, and deemed essential workers, work continued, as there were often no options to work-from-home making them increasingly susceptible to disease in addition to existing disparities. This was further exhibited as wealthier populations went from the “most mobile” to “least mobile” populations39 which was also correlated with education and income level.33 Among racial/ethnic minorities, Blacks / African Americans and Hispanics are more likely to have service, transportation, or jobs in sales which classifies them as “essential workers” who must continue to access healthcare. This is further exacerbated by the potential, or reality, of job loss during the pandemic while research shows that Blacks and Hispanics/Latinx populations are less likely to have savings to cover living expenses for at least three months.40

Neighborhood and Housing Insecurity

Where and how Blacks / African Americans live make a huge difference in health outcomes. Racial / ethnic minorities, in general, are more likely to live in densely populated areas increasing contact with other people.34 Moreover, racial/ethnic minorities are more likely to live in neighborhoods with a lack of healthy food options,35 recreational facilities, safety, and lighting which contributes to health conditions such as diabetes and obesity which are risk factors for COVID-19. In the current pandemic, communities with higher racial and ethnic minority populations have been shown to have higher housing density, more housing insecurity, scarcity of potable water, and more multigenerational households that make social distancing difficult while increasing susceptibility of the disease among elderly family members.41 This was especially evident in a recent study in New York which found a five-fold increase in positive COVID-19 tests among Black / African American populations based on spatial modeling by zip code.42 Much of this is a result of income inequality where we see disparities in the labor and economic system along with systemic policy and redlining that contributes to negative outcomes.

Testing Deserts

Similar to food deserts, testing deserts are areas that have limited access to COVID-19 testing compared to areas with higher access and are more common among lower income states and populations. Among the most disparaging concerns related to testing is the lack of state testing data by race/ethnicity with only six states reporting data across the nation.43 Beyond this, many of the factors above influence testing. For example, decreased access to health contributes to decreased testing opportunities as COVID-19 testing rates are lowest in states with the least healthcare access.42 Moreover, as economic insecurity and income are related to affordability and access to healthcare, associated costs of COVID-19 testing and treatment can be unbearable.

Testing deserts are increasingly evident among rural versus urban communities where more than 34 percent of the 8.5 million people living in highly vulnerable rural communities have no access to COVID-19 testing sites. Among this population Blacks / African Americans are 1.7 times more likely to live in these testing deserts and nearly three times more likely to live in a vulnerable testing desert compared to other rural Americans.43 This is especially evident when we note that the 20 counties with the highest COVID-19 death rates among Blacks / African Americans are all predominantly rural and Southern.

Occupation and Transportation

Access to transportation is an ongoing disparity in healthcare. Primarily focused on the ability of individuals to get to their necessary means of healthcare. COVID-19 provides an additional level of concern. As low-income populations are more likely to use public transportation, the risk of disease transmission is heightened especially since the pandemic has caused reduction in routes as public transportation has been identified as a vector for the spread of infection in densely populated areas.44 Mismanagement of public transportation can reinforce existing inequalities as these approaches toward safety often exclude those with the means for private transportation or income for daily fee-based transportation (Uber, Lyft, etc.). As studies show that high transmission risk exists among public transportation during disease outbreaks,45 populations most likely to rely on public transportation as their primary means of transportation suffer the burden of increased risk especially essential workers. Further, despite the heralded status of “essential workers,” many are not provided with the necessary personal protective equipment (PPE), hazard pay, or union incentives. This is spotlighted by the 20% of healthcare workers that account for COVID-19 related deaths.46 These disparities are an ongoing burden for the Black / African American community who disproportionately wear experience decreased quality of life daily based on the ongoing effects of policy and social class.
Social determinants of health often overlap. A considerable amount of disparity can be defined by socioeconomic status (poverty, level of income, level of education, housing). Language and literacy is associated with level of education where research shows that lower education is associated with decreased access to healthcare. Overcrowded housing is associated with housing and community design as is the location of certain communities within increasingly hazardous areas. Availability of resources, or disproportionate resource allocation, is highlighted by testing deserts throughout the United States in which Black / African Americans suffer the burden of especially in the South and among rural populations. Moreover, lack of private transportation can be associated with income and the means to survive which are also impacted by economic security and wealth gaps. The outcomes of the COVID-19 pandemic among Blacks / African Americans are not surprising as these outcomes have historically been present. However, the pandemic shines light on the need for change among policy and affordable care. More importantly, the pandemic solidifies the need to understand social determinants of health and root causes of vulnerability to begin to provide equitable solutions that improve the nation’s resilience against all crises.

Risk Factors for COVID-19

Housing
When individuals from racial and ethnic minority groups live in crowded conditions, following prevention strategies become more challenging. It is common in some cultures for family members of many generations to live in one household. Additionally, growing and disproportionate unemployment rates for some racial and ethnic minority groups during the COVID-19 pandemic may lead to greater risk of eviction and homelessness or sharing of housing. These factors and others are associated with more COVID-19 cases, hospitalizations, and deaths in areas where racial and ethnic minority groups live, learn, work, play, and worship. They also contribute to higher rates of some medical conditions that increase risks of severe illness from COVID-19. In addition, community strategies to slow the spread of COVID-19 can cause unintentional harm, such as lost wages, increased stress, and reduced access to services for some racial and ethnic minority groups.

Older Adults
Among adults, the risk for severe illness from COVID-19 increases with age, with older adults at highest risk. Severe illness means that the person with COVID-19 may require hospitalization, intensive care, or a ventilator to help them breathe, or may result in death.

Risk for Severe Illness Increases with Age
As one ages, risk for severe illness from COVID-19 increases. For example, people in their 50s are at higher risk for severe illness than people in their 40s. Similarly, people in their 60s or 70s are, in general, at higher risk for severe illness than people in their 50s. Those with the greatest risk for severe illness from COVID-19 are those aged 85 or older.

There are other factors that can increase risk for severe illness as well, such as underlying medical conditions. By understanding the factors that increase risk, one can make decisions about what kind of precautions to take in their daily life.

In general, the risk of getting severely ill from COVID-19 increases as one gets older. In fact, 8 out of 10 COVID-19-related deaths reported in the United States have been among adults aged 65 years and older.
People from some racial and ethnic minority groups are disproportionately represented in essential work settings such as healthcare facilities, farms, factories, grocery stores, and public transportation.

Children and COVID-19

While children have been less affected by COVID-19 compared to adults, children can be infected with the virus that causes COVID-19 and some children develop severe illness. Children with underlying medical conditions are at increased risk for severe illness compared to children without underlying medical conditions. Current evidence on which underlying medical conditions in children are associated with increased risk is limited. Children with the following conditions might be at increased risk for severe illness: asthma and other chronic lung disease, congenital (since birth) heart disease, diabetes, inherited metabolic disorders, obesity, medical complexity, severe genetic disorders, severe neurologic disorders, and immunosuppression due to malignancy or immune-weakening medications. It is especially important for people at increased risk of severe illness from COVID-19, and those who live with them, to protect themselves from getting COVID-19. If an individual starts feeling sick and thinks they may have COVID-19, they should get in touch with their healthcare provider within 24 hours.

Racial and Ethnic Minorities

There are many inequities in social determinants of health that put racial and ethnic minority groups at increased risk of getting sick and dying from COVID-19, some of which include:

Discrimination: Unfortunately, discrimination exists in systems meant to protect well-being or health. Examples of such systems include health care, housing, education, criminal justice, and finance. Discrimination, which includes racism, can lead to chronic and toxic stress and shapes social and economic factors that put some people from racial and ethnic minority groups at increased risk for COVID-19.48,52,53,54

Healthcare access and utilization: People from some racial and ethnic minority groups are more likely to be uninsured than non-Hispanic whites.49 Healthcare access can also be limited for these groups by many other factors, such as lack of transportation, child care, or ability to take time off of work; communication and language barriers; cultural differences between patients and providers; and historical and current discrimination in healthcare systems.15 Some people from racial and ethnic minority groups may hesitate to seek care because they distrust the government and healthcare systems responsible for inequities in treatment16 and historical events such as the Tuskegee Study of Untreated Syphilis in the African American Male and sterilization without people’s permission.57,58

Occupation: People from some racial and ethnic minority groups are disproportionately represented in essential work settings such as healthcare facilities, farms, factories, grocery stores, and public transportation.50 Some people who work in these settings have more chances to be exposed to the virus that causes COVID-19 due to several factors, such as close contact with the public or other workers, not being able to work from home, and not having paid sick days.50
Education, Income and Wealth Gap

Inequities in access to high-quality education for some racial and ethnic minority groups can lead to lower high school completion rates and barriers to college entrance. This may limit future job options and lead to lower paying or less stable jobs. People with limited job options likely have less flexibility to leave jobs that may put them at a higher risk of exposure to the virus that causes COVID-19. People in these situations often cannot afford to miss work, even if they’re sick, because they do not have enough money saved up for essential items like food and other important living needs.

Homelessness

Homeless services are often provided in congregate settings, which could facilitate the spread of infection. Because many people who are homeless are older adults or have underlying medical conditions, they may also be at increased risk for severe illness.

Many of the recommendations to prevent COVID-19 may be difficult for a person experiencing homelessness to do. Although it may not be possible to avoid certain crowded locations (such as shelters), people who are homeless should:

• Try to avoid other crowded public settings.
• If using public transportation, follow the CDC guidance on how to protect yourself when using transportation, try to travel during less busy times, and clean your hands as soon as possible after their trip.
• If possible, use take-away options for food.
• Maintain a distance of 6 feet (about two arms’ length) from other people.
• Wash their hands with soap and water for at least 20 seconds as often as possible and cover their coughs and sneezes.

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Health departments and healthcare facilities should be aware that people who are homeless are a particularly vulnerable group. If possible, identifying non-congregate settings where those at increased risk can stay may help protect them from COVID-19.

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Any person experiencing homelessness with symptoms consistent with COVID-19 (fever, cough, or shortness of breath) should alert their service providers (such as case managers, shelter staff, and other care providers). These staff will help the individual understand how to isolate themselves and identify options for medical care as needed.

Pregnancy and Breastfeeding

Based on what we know at this time, pregnant people might be at an increased risk for severe illness from COVID-19 compared to non-pregnant people. Additionally, pregnant people with COVID-19 may be at increased risk for other adverse outcomes, such as preterm birth.

There is no way to ensure zero risk of infection, so it is important to understand the risks and know how to be as safe as possible. In general, the more people that are interact with, the more closely they are interacting with, and the longer that interaction, the higher the risk of getting and spreading COVID-19.

Here are preventive steps individuals who live together can take:

• Limit close contact interactions with other people as much as possible.
• When going out or interacting with others outside the immediate household.
• Wear a mask, especially when other social distancing measures are difficult to maintain. Note that wearing a mask is not a substitute for other everyday prevention actions like washing hands frequently and avoiding close contact with other people.
• Avoid others who are not wearing masks or ask others around you to wear a mask, if possible.
• Stay at least 6 feet away from others outside your household.
• Wash hands with soap and water for at least 20 seconds. If soap and water are not available, use a hand sanitizer with at least 60% alcohol.
• Avoid activities where taking protective measures may be difficult and where social distancing can’t be maintained.

An expecting mother along with their family and healthcare providers, should decide whether and how to start or continue breastfeeding. Breast milk provides protection against many illnesses and is the best source of nutrition for most babies. It is not known for sure if mothers with COVID-19 can spread the virus to babies in breast milk, but the current evidence suggests that this isn’t likely.

Helpful tips for breastfeeding

Individuals may find it harder to start or continue breastfeeding if you are not sharing a room with your newborn in the hospital. Here are some helpful tips:

• Frequent hand expression or pumping, ideally with a hospital-grade pump, will help establish and build milk supply if separated from the newborn.
• Pump or feed every 2-3 hours (at least 8-10 times in 24 hours, including at night), especially in the first few days. This signals the breasts to produce milk and prevents blocked milk ducts and breast infections.
• If unable to establish milk production in the hospital after birth or have to temporarily stop breastfeeding during a COVID-19 illness because, get help from a lactation support provider.
• Always wash hands with soap and water for 20 seconds before breastfeeding or expressing breast milk. If soap and water are not available, use a hand sanitizer with at least 60% alcohol.
• If positive for COVID-19 and choose to express breast milk
• Wash hands beforehand.
• Wear a mask while breastfeeding.
• If positive for COVID-19 and choose to breastfeed
• Use a dedicated breast pump (not shared).
• Wear a mask during expression and wash hands with soap and water for at least 20 seconds before touching any pump or bottle parts and before expressing breast milk.
• Follow recommendations for proper pump cleaning after each use, cleaning all parts that come into contact with breast milk.
• Consider having a healthy caregiver who does not have COVID-19, is not at increased risk for severe illness from COVID-19 and is living in the same home feed the expressed breast milk to the baby. Any caregiver feeding the baby should wear a mask when caring for the baby for the entire time you are in isolation and for two weeks after isolation is complete.
Disability

Disability alone may not be related to higher risk for getting COVID-19 or having severe illness. Most people with disabilities are not inherently at higher risk for becoming infected with or having severe illness from COVID-19. However, some people with disabilities might be at a higher risk of infection or severe illness because of their underlying medical conditions. All people seem to be at higher risk of severe illness from COVID-19 if they have serious underlying medical conditions like chronic lung disease, a serious heart condition, or a weakened immune system. Adults with disabilities are three times more likely than adults without disabilities to have heart disease, stroke, diabetes, or cancer than adults without disabilities.

Developmental and Behavioral Disorders

Developmental and behavioral disorders are a group of conditions due to an impairment in physical, learning, language, or behavior areas. These conditions begin during the developmental period, may affect day-to-day functioning, and usually last throughout a person’s lifetime. Some developmental and behavioral disorders include:

- Attention Deficit Hyperactivity Disorder (ADHD)
- Autism
- Cerebral Palsy
- Fetal Alcohol Spectrum Disorders (FASDs)
- Fragile X
- Intellectual Disability
- Learning Disorder
- Tourette Syndrome

Most people with developmental or behavioral disorders are not naturally at higher risk for becoming infected with or having severe illness from novel coronavirus (COVID-19). However, people with developmental or behavioral disorders who have serious underlying medical conditions may be at risk of serious illness. Some people with developmental or behavioral disorders may have difficulties accessing information, understanding or practicing preventative measures, and communicating symptoms of illness.

Rural Communities

Approximately 46 million Americans live in rural areas, which face distinctive challenges during the COVID-19 pandemic.

Long-standing systemic health and social inequities have put some rural residents at increased risk of getting COVID-19 or having severe illness. In general, rural Americans tend to have higher rates of cigarette smoking, high blood pressure, and obesity as well as less access to healthcare which can negatively affect health outcomes. They are also less likely to have health insurance. Rural communities are also becoming more diverse racially and ethnically. Racial and ethnic minority groups including, African Americans, Hispanics and Latinos, American Indians/Alaskan Natives, and Asian/Pacific Islanders, are at increased risk of getting COVID-19 and having severe illness.

Rural areas can face different health challenges depending on where they are located. Each rural community should assess their unique susceptibility and social vulnerability to COVID-19. Many rural communities are considered highly vulnerable according to CDC’s Social Vulnerability Index (SVI). The SVI includes factors such as housing, transportation, socioeconomic status, housing, race and ethnicity, and language which can be helpful in determining how to help support rural communities before, during, and after COVID-19. Rural communities also have strengths, assets, and protective factors that public health can use to tailor policies and messages designed to:

- Reduce the risk of COVID-19 community spread and
- Improve the general health of rural populations, which may minimize the severity of COVID-19.
Coping with stress in a healthy way will make the individual, the people they care about, and their community stronger.

Individuals who may respond more strongly to the stress of a crisis include:

- Those who are at higher risk for severe illness from COVID-19 (for example, older people, and people of any age with certain underlying medical conditions).
- Children and teens.
- People caring for family members or loved ones.
- Frontline workers such as health care providers and first responders.
- Essential workers who work in the food industry.
- People who have existing mental health conditions.
- People who use substances or have a substance use disorder.
- People who have lost their jobs, had their work hours reduced, or had other major changes to their employment.
- People who have disabilities or developmental delay.
- People who are socially isolated from others, including people who live alone, and people in rural or frontier areas.
- People in some racial and ethnic minority groups.
- People who do not have access to information in their primary language.
- People experiencing homelessness.
- People who live in congregate (group) settings.

Caring for friends and family can be a stress reliever, but it should be balanced with self-care. Helping others cope with stress, by providing social support, can help make the community stronger. During times of increased social distancing, people can still maintain social connections and care for their mental health. Phone calls or video chats can help individuals and their loved ones feel socially connected, less lonely, or isolated.

Recovering from COVID-19 or ending home isolation

It can be stressful to be separated from others if exposed to COVID-19. Each person ending a period of home isolation may feel differently about it.

- Emotional reactions may include:
  - Mixed emotions, including relief.
  - Fear and worry about one's own health and the health of loved ones.
  - Stress from the experience of having COVID-19 and monitoring oneself or being monitored by others.
  - Sadness, anger, or frustration because friends or loved ones have fears of getting the disease (from you), even though cleared to be around others.
  - Guilt about not being able to perform normal work or parenting duties while positive with COVID-19.
  - Worrying about getting re-infected or sick again even after having COVID-19.
  - Other emotional or mental health changes.

Children may also feel upset or have other strong emotions if they, or someone they know, has COVID-19, even if they are now better and able to be around others again.
While we are currently within the response phase of the COVID-19 pandemic, practicing preparedness is still essential to improving recovery and decreasing the impact of concurrent disasters. Disasters are increasing in frequency and strength as evident by the 2020 hurricane season and ongoing wildfires in California which each present new implication to the ongoing pandemic. Evacuation and sheltering from hurricanes are among two major concerns that counteract social distancing guidelines in disasters while decreased air quality can exacerbate ongoing respiratory issues and increase susceptibility to COVID-19. Additionally, loss of property due to disasters such as tornadoes, hurricanes and wildfires also provide additional points of consideration.

The impending influenza season should also be a point of preparedness for individuals, organizations and communities as we have yet to experience an ongoing pandemic and epidemic simultaneously. These threats require individuals to be more vigilant of the upcoming incidents and increasingly prepared combat the risk. For Black / African-American populations, disparity and inequity are ongoing. Take time to ensure adequate preparedness for all hazards with consideration for how the pandemic impacts our normal mechanisms of preparation for disasters. Provided below are resources that can provide education, awareness, and preparedness opportunities to improve future impacts of hazards.

Resources

**COVID-19 MONITORING**
Centers for Disease Control & Prevention COVID-19 Data Tracker:
 CDC COVID Data Tracker

The COVID Tracking Project:
 The COVID Racial Data Tracker

APM Research Lab: The Color of Coronavirus:
 COVID-19 Deaths by Race and Ethnicity in the United States

Johns Hopkins Coronavirus Resource Center:
 COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)

COVID-NET:
Weekly Summary of US COVID-19 Hospitalization Data

Morbidity and Mortality Weekly Report (MMWR):
Novel Coronavirus Reports

**COVID-19 EDUCATION & AWARENESS INFORMATION**
Centers for Disease Control & Prevention:
 Coronavirus (COVID – 19)

World Health Organization:
Coronavirus Disease (COVID-19) Pandemic

Federal Emergency Management Agency:
Coronavirus (COVID-19) Response
• Please visit your state and local department of public health sites for up-to-date information in your state, county, or city.

**VULNERABILITY AND EQUITY RESOURCES**
Agency for Toxic Substances and Disease Registry (ATSDR):
Social Vulnerability Index (CDC)

Emory University:
Health Equity Interactive Dashboard

Community Assessment for Public Health Emergency Response:
CASPER

**SUPPORT**
FEMA: Recovery and Economic Support
• Public Assistance
• Financial Assistance
• Financial Support for State, Tribal, Local and Territorial Government
• Food and Feeding
• Homelessness and Housing
• Small Business and Economic Resources
• Rural and Agricultural Resources
• Schools and Daycare Resources
• Healthcare
• Arts & Culture.

Centers for Medicare and Medicaid Services: COVID-19 Resources on Vulnerable Populations
• Feature Resources for Healthcare Professionals
• Featured Resources for Consumers and Patients
• Resources in Other Languages

National League of Cities: Vulnerable Populations
• Communities of Color and Low-Income Communities
• Seniors, People with Disabilities and Underlying Medical Conditions
• People Experiencing Homelessness
• People Experiencing Incarceration
• Multilingual Capacity
• Digital Divide
COVID-19 ADVOCACY
National Association for the Advancement of Colored People (NAACP): Ten Equity Implications of the Coronavirus COVID-19 Outbreak in the United States

Disability Rights Education and Defense Fund: COVID-19 Advocacy and Resources

MENTAL HEALTH
Disaster Distress Helpline: 1-800-985-9999 (press 2 for Spanish), or text TalkWithUs for English or Hablamos para Español a people from Puerto Rico can text hablamos a 1-877-922-9292.
National Domestic Violence Hotline: 1-800-799-7233 or text LOVEIS 22522
National Child Abuse Hotline: 1-800-4AChild (1-800-422-4453) or text 1-888-283-8433
National Sexual Assault Hotline: 1-800-HOPE (4673) or Online Chat
The Eldercare Locator: 1-800-677-1116 TTY Instructions
Veteran’s Crisis Line: 1-800-273-TALK (8255) or Crisis Chat, or text B38825
Find a health care provider or treatment for substance use disorder and mental health
SAMHSA’s National Helpline: 1-800-662-HELP (4357) and TTY 1-800-822-6868
Interactive Map of Selected Federally Qualified Health Centers

TESTING
United Health Care: COVID-19 Testing Site Locator
Interactive Map of Selected Federally Qualified Health Centers

Source of Statistics
Figure 1: United States Census Bureau: Quick Facts Dashboard United States (2020). https://www.census.gov/quickfacts/fact/tridashquery/fb/rhigp2062/hhjz2p19
Figure 6: The COVID Tracking Project. COVID-19 is Affecting Black, Indigenous, Latinx, and Other People of Color the Most. https://covidtracking.com/race
Table 1: The COVID Tracking Project. COVID-19 is Affecting Black, Indigenous, Latinx, and Other People of Color the Most. https://docs.google.com/spreadsheets/d/e/2PACX-xyR_xM3ACPDCHfDy2iCMHiOOGqElZsqQHBBair1RQXbs_vWBOAq4ucEADyqClPSsYQ68B/ export?format=csv

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68. Agency for Toxic substances and disease registry (2020). CDC Social Vulnerability Index. ATSDR.